ABSTRACT

AKTIVITAS ANTIMALARIA EKSTRAK ETANOL AKAR Helianthus annuus L. SECARA IN VIVO PADA MENCIT TERINFEKSI Plasmodium berghei

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Malaria is one of the public health problems that can cause death especially in high risk groups. Southeast Asia is the second largest malaria case in the world. Selection of new medicinal plants is needed to provide alternative treatment of malaria due to resistance, one of the plants is Helianthus annuus L. The objective of this study was to determine the effect of ethanolic extract of Helianthus annuus L. roots against mice infected with Plasmodium berghei. Helianthus annuus L. roots were macerated using 96% ethanol and tested in vivo using a 4-day Peter suppressive test in mice weighing 20-25 gram. Mice infected with blood donor mice containing red blood cells infected with *Plasmodium* berhei with parasitemia > 20%. The extract was administered for 4 consecutive days orally with dose 1; 10; 100; 250 mg/kg body weight if parasite level in mice reach $\pm 1\%$. Blood smear sampling from each rat was performed to determine the level of parasitemia for five days compared with untreated subjects, then ED₅₀ was calculated from the analysis of the inhibition level within five days with probit analysis. The results showed that ethanolic extract of Helianthus annuus L. roots had ED₅₀ value 10.44 mg/kg body weight againts *Plasmodium berghei* and classified into very good activity.

Keywords: Helianthus annuus L, Plasmodium berghei, antimalaria, in vivo